SEQUENCE LISTING

<110> Pfizer Inc.
Pfizer Limited
Maw, Graham Nigel
Wayman, Christopher Peter

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<151> 2000-03-29

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Ile Cys Lys Ser Ser Asp Cys Ile Lys Ser Ala Ala Arg Leu Ile Gln
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Cys Gly Gly Trp Leu Lys Arg Asn Val Ile Pro Glu Thr Ser Ser Arg
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Tyr Gly Asn Phe Asp Ile Leu Arg Asp Glu Leu Glu Val Val Leu Lys
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Asp Val Leu Gln Glu Pro Lys Thr Glu Asp Ile Val Ala Val Gln Lys
        115                 120                 125

Ala Lys Ala Leu Tyr Arg Ser Cys Ile Asn Glu Ser Ala Ile Asp Ser
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Arg Gly Gly Glu Pro Leu Leu Lys Leu Leu Pro Asp Ile Tyr Gly Trp
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Pro Val Ala Thr Glu Asn Trp Glu Gln Lys Tyr Gly Ala Ser Trp Thr
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Ala Glu Lys Ala Ile Ala Gln Leu Asn Ser Lys Tyr Gly Lys Lys Val
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Leu Ile Asn Leu Phe Val Gly Thr Asp Asp Lys Asn Ser Val Asn His
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Val Ile His Ile Asp Gln Pro Arg Leu Gly Leu Pro Ser Arg Asp Tyr
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Tyr Glu Cys Thr Gly Ile Tyr Lys Glu Ala Cys Thr Ala Tyr Val Asp
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Phe Met Ile Ser Val Ala Arg Leu Ile Arg Gln Glu Glu Arg Leu Pro
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Ile Asp Glu Asn Gln Leu Ala Leu Glu Met Asn Lys Val Met Glu Leu
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Glu Lys Glu Ile Ala Asn Ala Thr Ala Lys Pro Glu Asp Arg Asn Asp
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Asn Glu Ile Met Ser Thr Val Asn Ile Ser Ile Thr Asn Glu Glu Asp
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Val Val Val Tyr Ala Pro Glu Tyr Leu Thr Lys Leu Lys Pro Ile Leu
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Thr Lys Tyr Ser Ala Arg Asp Leu Gln Asn Leu Met Ser Trp Arg Phe
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Ser Asn Asp Asn Lys Leu Asn Asn Glu Tyr Leu Glu Leu Asn Tyr Lys
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Lys Glu Gln Ser Gln Cys Met Val Tyr Gln Tyr Gly Asn Phe Ser Trp
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Asn Tyr Ile Lys Lys Asn Gly Glu Glu Lys Leu Leu Pro Gly Leu Asp
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Leu Asn His Lys Gln Leu Phe Phe Leu Asn Phe Ala Gln Val Trp Cys
675 680 685

Gly Thr Tyr Arg Pro Glu Tyr Ala Val Asn Ser Ile Lys Thr Asp Val
690 695 700

His Ser Pro Gly Asn Phe Arg Ile Ile Gly Thr Leu Gln Asn Ser Ala
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Glu Glu Lys Pro Lys Phe Arg Ser Ile Val His Ala Val Gln Ala Gly
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Asp Arg Ala Lys Thr Met Ser Leu Ile Leu His Ala Ala Asp Ile Ser
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Val Tyr Thr Tyr Leu Leu Asp Gly Glu Ser Gln Leu Val Cys Glu Asp
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Pro Pro His Glu Leu Pro Gln Glu Gly Lys Val Arg Glu Ala Ile Ile
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Leu Gln Ala Val Glu Lys His Thr Leu Val Ala Leu Arg Arg Val Gln
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Gln Leu Ser Cys Lys Val Ile Gly Asp Lys Val Leu Gly Glu Glu Val
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Gln Tyr Arg Ser His Leu Ala Asn Glu Met Met Met Tyr His Met Lys
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<212> PRT
<213> Homo Sapiens

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Ser Leu Leu Val Cys Leu Gly Ala Leu Ala Glu Ala Tyr Pro Ser Lys
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Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr
35 40 45

Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr
50 55 60

Gly Lys Arg Ser Ser Pro Glu Thr Leu Ile Ser Asp Leu Leu Met Arg
65 70 75 80

Glu Ser Thr Glu Asn Val Pro Arg Thr Arg Leu Glu Asp Pro Ala Met
85 90 95

Trp

<210> 8
<211> 551
<212> DNA
<213> Homo Sapiens

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cactgatttc agacctcttg atgagagaaa gcacagaaaa tgttcccaga actcggcttg 360

aagaccctgc aatgtggtga tgggaaatga gacttgctct ctggcctttt cctattttca 420

gcccatattt catcgtgtaa aacgagaatc cacccatcct accaatgcat gcagccactg 480

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<210> 9
<211> 384
<212> PRT
<213> Homo Sapiens

<400> 9

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Asn Phe Ser Glu Lys Asn Ala Gln Leu Leu Ala Phe Glu Asn Asp Asp
20 25 30

Cys His Leu Pro Leu Ala Met Ile Phe Thr Leu Ala Leu Ala Tyr Gly
35 40 45

Ala Val Ile Ile Leu Gly Val Ser Gly Asn Leu Ala Leu Ile Ile Ile
50 55 60

Ile Leu Lys Gln Lys Glu Met Arg Asn Val Thr Asn Ile Leu Ile Val
65 70 75 80

Asn Leu Ser Phe Ser Asp Leu Leu Val Ala Ile Met Cys Leu Pro Phe
85 90 95

Thr Phe Val Tyr Thr Leu Met Asp His Trp Val Phe Gly Glu Ala Met
100 105 110

Cys Lys Leu Asn Pro Phe Val Gln Cys Val Ser Ile Thr Val Ser Ile
115 120 125

Phe Ser Leu Val Leu Ile Ala Val Glu Arg His Gln Leu Ile Ile Asn
130 135 140

```
Pro Arg Gly Trp Arg Pro Asn Asn Arg His Ala Tyr Val Gly Ile Ala
145                 150                 155                 160

Val Ile Trp Val Leu Ala Val Ala Ser Ser Leu Pro Phe Leu Ile Tyr
                165                 170                 175

Gln Val Met Thr Asp Glu Pro Phe Gln Asn Val Thr Leu Asp Ala Tyr
            180                 185                 190

Lys Asp Lys Tyr Val Cys Phe Asp Gln Phe Pro Ser Asp Ser His Arg
        195                 200                 205

Leu Ser Tyr Thr Thr Leu Leu Leu Val Leu Gln Tyr Phe Gly Pro Leu
    210                 215                 220

Cys Phe Ile Phe Ile Cys Tyr Phe Lys Ile Tyr Ile Arg Leu Lys Arg
225                 230                 235                 240

Arg Asn Asn Met Met Asp Lys Met Arg Asp Asn Lys Tyr Arg Ser Ser
                245                 250                 255

Glu Thr Lys Arg Ile Asn Ile Met Leu Leu Ser Ile Val Val Ala Phe
            260                 265                 270

Ala Val Cys Trp Leu Pro Leu Thr Ile Phe Asn Thr Val Phe Asp Trp
        275                 280                 285

Asn His Gln Ile Ile Ala Thr Cys Asn His Asn Leu Leu Phe Leu Leu
    290                 295                 300

Cys His Leu Thr Ala Met Ile Ser Thr Cys Val Asn Pro Ile Phe Tyr
305                 310                 315                 320

Gly Phe Leu Asn Lys Asn Phe Gln Arg Asp Leu Gln Phe Phe Phe Asn
                325                 330                 335

Phe Cys Asp Phe Arg Ser Arg Asp Asp Asp Tyr Glu Thr Ile Ala Met
            340                 345                 350

Ser Thr Met His Thr Asp Val Ser Lys Thr Ser Leu Lys Gln Ala Ser
        355                 360                 365

Pro Val Ala Phe Lys Lys Ile Asn Asn Asn Asp Asp Asn Glu Lys Ile
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aaaataatct ataacaacca aaccaatcaa aatgaattca acattatttt cccaggttga 180

aaatcattca gtccactcta atttctcaga gaagaatgcc cagcttctgg cttttgaaaa 240

tgatgattgt catctgccct tggccatgat atttaccttа gctcttgctt atggagctgt 300

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gatgagaaat gttaccaaca tcctgattgt gaacctttcc ttctcagact tgcttgttgc 420

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<211> 381
<212> PRT
<213> Homo Sapiens

<400> 11

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Met Lys Val Glu Gln Tyr Gly Pro Gln Thr Thr Pro Arg Gly Glu Leu
20 25 30

Val Pro Asp Pro Glu Pro Glu Leu Ile Asp Ser Thr Lys Leu Ile Glu
35 40 45

Val Gln Val Val Leu Ile Leu Ala Tyr Cys Ser Ile Ile Leu Leu Gly
50 55 60

Val Ile Gly Asn Ser Leu Val Ile His Val Val Ile Lys Phe Lys Ser
65 70 75 80

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Met Arg Thr Val Thr Asn Phe Phe Ile Ala Asn Leu Ala Val Ala Asp
                85                  90                  95

Leu Leu Val Asn Thr Leu Cys Leu Pro Phe Thr Leu Thr Tyr Thr Leu
            100                 105                 110

Met Gly Glu Trp Lys Met Gly Pro Val Leu Cys His Leu Val Pro Tyr
        115                 120                 125

Ala Gln Gly Leu Ala Val Gln Val Ser Thr Ile Thr Leu Thr Val Ile
    130                 135                 140

Ala Leu Asp Arg His Arg Cys Ile Val Tyr His Leu Glu Ser Lys Ile
145                 150                 155                 160

Ser Lys Arg Ile Ser Phe Leu Ile Ile Gly Leu Ala Trp Gly Ile Ser
                165                 170                 175

Ala Leu Leu Ala Ser Pro Leu Ala Ile Phe Arg Glu Tyr Ser Leu Ile
            180                 185                 190

Glu Ile Ile Pro Asp Phe Glu Ile Val Ala Cys Thr Glu Lys Trp Pro
        195                 200                 205

Gly Glu Glu Lys Ser Ile Tyr Gly Thr Val Tyr Ser Leu Ser Ser Leu
    210                 215                 220

Leu Ile Leu Tyr Val Leu Pro Leu Gly Ile Ile Ser Phe Ser Tyr Thr
225                 230                 235                 240

Arg Ile Trp Ser Lys Leu Lys Asn His Val Ser Pro Gly Ala Ala Asn
                245                 250                 255

Asp His Tyr His Gln Arg Arg Gln Lys Thr Thr Lys Met Leu Val Cys
            260                 265                 270

Val Val Val Val Phe Ala Val Ser Trp Leu Pro Leu His Ala Phe Gln
        275                 280                 285

Leu Ala Val Asp Ile Asp Ser Gln Val Leu Asp Leu Lys Glu Tyr Lys
    290                 295                 300

Leu Ile Phe Thr Val Phe His Ile Ile Ala Met Cys Ser Thr Phe Ala
305                 310                 315                 320

Asn Pro Leu Leu Tyr Gly Trp Met Asn Ser Asn Tyr Arg Lys Ala Phe
                325                 330                 335
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Leu Ser Ala Phe Arg Cys Glu Gln Arg Leu Asp Ala Ile His Ser Glu
340 345 350

Val Ser Val Thr Phe Lys Ala Lys Lys Asn Leu Glu Val Arg Lys Asn
355 360 365

Ser Gly Pro Asn Asp Ser Phe Thr Glu Ala Thr Asn Val
370 375 380

<210> 12
<211> 1200
<212> DNA
<213> Homo Sapiens

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ctgaccctga gccagagctt atagatagta ccaagctgat tgaggtacaa gttgttctca 180

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<210> 13
<211> 445

<212> PRT
<213> Homo Sapiens

<400> 13

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Asn Asn Thr Ala Ala Thr Arg Asn Ser Asp Phe Pro Val Trp Asp Asp
            20                  25                  30

Tyr Lys Ser Ser Val Asp Asp Leu Gln Tyr Phe Leu Ile Gly Leu Tyr
        35                  40                  45

Thr Phe Val Ser Leu Leu Gly Phe Met Gly Asn Leu Leu Ile Leu Met
    50                  55                  60

Ala Leu Met Lys Lys Arg Asn Gln Lys Thr Thr Val Asn Phe Leu Ile
65                  70                  75                  80

Gly Asn Leu Ala Phe Ser Asp Ile Leu Val Val Leu Phe Cys Ser Pro
                85                  90                  95

Phe Thr Leu Thr Ser Val Leu Leu Asp Gln Trp Met Phe Gly Lys Val
            100                 105                 110

Met Cys His Ile Met Pro Phe Leu Gln Cys Val Ser Val Leu Val Ser
        115                 120                 125

Thr Leu Ile Leu Ile Ser Ile Ala Ile Val Arg Tyr His Met Ile Lys
    130                 135                 140

His Pro Ile Ser Asn Asn Leu Thr Ala Asn His Gly Tyr Phe Leu Ile
145                 150                 155                 160

Ala Thr Val Trp Thr Leu Gly Phe Ala Ile Cys Ser Pro Leu Pro Val
                165                 170                 175

Phe His Ser Leu Val Glu Leu Gln Glu Thr Phe Gly Ser Ala Leu Leu
            180                 185                 190

Ser Ser Arg Tyr Leu Cys Val Glu Ser Trp Pro Ser Asp Ser Tyr Arg
        195                 200                 205

Ile Ala Phe Thr Ile Ser Leu Leu Leu Val Gln Tyr Ile Leu Pro Leu
    210                 215                 220

Val Cys Leu Thr Val Ser His Thr Ser Val Cys Arg Ser Ile Ser Cys
225                 230                 235                 240
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Gly Leu Ser Asn Lys Glu Asn Arg Leu Glu Glu Asn Glu Met Ile Asn
                245                 250                 255

Leu Thr Leu His Pro Ser Lys Lys Ser Gly Pro Gln Val Lys Leu Ser
            260                 265                 270

Gly Ser His Lys Trp Ser Tyr Ser Phe Ile Lys Lys His Arg Arg Arg
        275                 280                 285

Tyr Ser Lys Lys Thr Ala Cys Val Leu Pro Ala Pro Glu Arg Pro Ser
    290                 295                 300

Gln Glu Asn His Ser Arg Ile Leu Pro Glu Asn Phe Gly Ser Val Arg
305                 310                 315                 320

Ser Gln Leu Ser Ser Ser Ser Lys Phe Ile Pro Gly Val Pro Thr Cys
                325                 330                 335

Phe Glu Ile Lys Pro Glu Glu Asn Ser Asp Val His Glu Leu Arg Val
            340                 345                 350

Lys Arg Ser Val Thr Arg Ile Lys Lys Arg Ser Arg Ser Val Phe Tyr
        355                 360                 365

Arg Leu Thr Ile Leu Ile Leu Val Phe Ala Val Ser Trp Met Pro Leu
    370                 375                 380

His Leu Phe His Val Val Thr Asp Phe Asn Asp Asn Leu Ile Ser Asn
385                 390                 395                 400

Arg His Phe Lys Leu Val Tyr Cys Ile Cys His Leu Leu Gly Met Met
                405                 410                 415

Ser Cys Cys Leu Asn Pro Ile Leu Tyr Gly Phe Leu Asn Asn Gly Ile
            420                 425                 430

Lys Ala Asp Leu Val Ser Leu Ile His Cys Leu His Met
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<211> 1370
<212> DNA
<213> Homo Sapiens

<400> 14
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gctttatggg gaatctactt attttaatgg ctctcatgaa aaagcgtaat cagaagacta 240

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ttgccattgt caggtatcat atgataaaac atcccatatc taataattta acagcaaacc 480

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gtgtgttacc tgctccagaa agaccttctc aagagaacca ctccagaata cttccagaaa 960

actttggctc tgtaagaagt cagctctctt catccagtaa gttcatacca ggggtcccca 1020

cttgctttga gataaaacct gaagaaaatt cagatgttca tgaattgaga gtaaaacgtt 1080

ctgttacaag aataaaaaag agatctcgaa gtgttttcta cagactgacc atactgatat 1140

tagtatttgc tgttagttgg atgccactac acctttcca tgtggtaact gattttaatg 1200

acaatcttat ttcaaatagg catttcaagt tggtgtattg catttgtcat ttgttgggca 1260

tgatgtcctg ttgtcttaat ccaattctat atgggtttct taataatggg attaaagctg 1320

atttagtgtc ccttatacac tgtcttcata tgtaataatt ctcactgttt 1370

<210> 15
<211> 170
<212> PRT
<213> Homo Sapiens

<400> 15

Met Asp Thr Arg Asn Lys Ala Gln Leu Leu Val Leu Leu Thr Leu Leu
1 5 10 15

Ser Val Leu Phe Ser Gln Thr Ser Ala Trp Pro Leu Tyr Arg Ala Pro
20 25 30

Ser Ala Leu Arg Leu Gly Asp Arg Ile Pro Phe Glu Gly Ala Asn Glu
35 40 45

Pro Asp Gln Val Ser Leu Lys Glu Asp Ile Asp Met Leu Gln Asn Ala
50 55 60

Leu Ala Glu Asn Asp Thr Pro Tyr Tyr Asp Val Ser Arg Asn Ala Arg
65 70 75 80

His Ala Asp Gly Val Phe Thr Ser Asp Phe Ser Lys Leu Leu Gly Gln
85 90 95

Leu Ser Ala Lys Lys Tyr Leu Glu Ser Leu Met Gly Lys Arg Val Ser
100 105 110

Ser Asn Ile Ser Glu Asp Pro Val Pro Val Lys Arg His Ser Asp Ala
115 120 125

Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln Met Ala Val Lys
130 135 140

Lys Tyr Leu Asn Ser Ile Leu Asn Gly Lys Arg Ser Ser Glu Gly Glu
145 150 155 160

Ser Pro Asp Phe Pro Glu Glu Leu Glu Lys
165 170

<210> 16
<211> 1511
<212> DNA
<213> Homo Sapiens

<400> 16
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acagaaatgg acaccagaaa taaggcccag ctccttgtgc tcctgactct tctcagtgtg 120

ctcttctcac agacttcggc atggcctctt tacagggcac cttctgctct caggttgggt 180

gacagaatac cctttgaggg agcaaatgaa cctgatcaag tttcattaaa agaagacatt 240

gacatgttgc aaaatgcatt agctgaaaat gacacaccct attatgatgt atccagaaat 300

gccaggcatg ctgatggagt tttcaccagt gacttcagta aactcttggg tcaactttct 360

gccaaaaagt accttgagtc tcttatggga aaacgtgtta gcagtaacat ctcagaagac 420

cctgtaccag tcaaacgtca ctcagatgca gtcttcactg acaactatac ccgccttaga 480

aaacaaatgg ctgtaaagaa atatttgaac tcaattctga atggaaagag gagcagtgag 540

ggagaatctc ccgactttcc agaagagtta gaaaaatgat gaaaaagacc tttggagcaa 600

agctgatgac aacttcccag tgaattcttg aaggaaaatg atacgcaaca taattaaatt 660

ttagattcta cataagtaat tcaagaaaac aacttcaata tccaaaccaa ataaaaatat 720

tgtgttgtga atgttgtgat gtattctagc taatgtaata actgtgaagt ttacattgta 780

aatagtattt gagagttcta aattttgtct ttaactcata aaaagcctgc aatttcatat 840

gctgtatatc ctttctaaca aaaaaatata ttttaatgat aagtaatgct aggttaatcc 900

aattatatga gacgtttttg gaagagtagt aatagagcaa aattgatgtg tttatttata 960

gagtgtactt aactattcag gagagtagaa cagataatca gtgtgtctaa atttgaatgt 1020

taagcagatg gaatgctgtg ttaaataaac ctcaaaatgt ctaagatagt aacaatgaag 1080

ataaaaagac attcttccaa aaagattttc agaaaatatt atgtgtttcc atattttata 1140

ggcaaccttt atttttaatg gtgttttaaa aaatctcaaa tttggattgc taatcaccaa 1200

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tcaataataa atatttttgc cataatgact cagaatattg ctttggtcat atgagcttcc 1380

ttctgtgaaa tacattttgg agacacaact atttttccaa aataatttta agaaatcaaa 1440

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aaaaaaaaaa a 1511

<210> 17
<211> 170
<212> PRT
<213> Homo Sapiens

<400> 17

Met Asp Thr Arg Asn Lys Ala Gln Leu Leu Val Leu Leu Thr Leu Leu
1 5 10 15

Ser Val Leu Phe Ser Gln Thr Ser Ala Trp Pro Leu Tyr Arg Ala Pro
20 25 30

Ser Ala Leu Arg Leu Gly Asp Arg Ile Pro Phe Glu Gly Ala Asn Glu
35 40 45

Pro Asp Gln Val Ser Leu Lys Glu Asp Ile Asp Met Leu Gln Asn Ala
50 55 60

Leu Ala Glu Asn Asp Thr Pro Tyr Tyr Asp Val Ser Arg Asn Ala Arg
65 70 75 80

His Ala Asp Gly Val Phe Thr Ser Asp Phe Ser Lys Leu Leu Gly Gln
85 90 95

Leu Ser Ala Lys Lys Tyr Leu Glu Ser Leu Met Gly Lys Arg Val Ser
100 105 110

Ser Asn Ile Ser Glu Asp Pro Val Pro Val Lys Arg His Ser Asp Ala
115 120 125

Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln Met Ala Val Lys
130 135 140

Lys Tyr Leu Asn Ser Ile Leu Asn Gly Lys Arg Ser Ser Glu Gly Glu
145 150 155 160

Ser Pro Asp Phe Pro Glu Glu Leu Glu Lys
165 170

<210> 18
<211> 1511
<212> DNA
<213> Homo Sapiens

<400> 18
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ctcttctcac agacttcggc atggcctctt tacagggcac cttctgctct caggttgggt 180

gacagaatac cctttgaggg agcaaatgaa cctgatcaag tttcattaaa agaagacatt 240

gacatgttgc aaaatgcatt agctgaaaat gacacaccct attatgatgt atccagaaat 300

gccaggcatg ctgatggagt tttcaccagt gacttcagta aactcttggg tcaactttct 360

gccaaaaagt accttgagtc tcttatggga aaacgtgtta gcagtaacat ctcagaagac 420

cctgtaccag tcaaacgtca ctcagatgca gtcttcactg acaactatac ccgccttaga 480

aaacaaatgg ctgtaaagaa atatttgaac tcaattctga atggaaagag gagcagtgag 540

ggagaatctc ccgactttcc agaagagtta gaaaaatgat gaaaaagacc tttggagcaa 600

agctgatgac aacttcccag tgaattcttg aaggaaaatg atacgcaaca taattaaatt 660

ttagattcta cataagtaat tcaagaaaac aacttcaata tccaaaccaa ataaaaatat 720

tgtgttgtga atgttgtgat gtattctagc taatgtaata actgtgaagt ttacattgta 780

aatagtattt gagagttcta aattttgtct ttaactcata aaaagcctgc aatttcatat 840

gctgtatatc ctttctaaca aaaaaatata ttttaatgat aagtaatgct aggttaatcc 900

aattatatga gacgtttttg gaagagtagt aatagagcaa aattgatgtg tttatttata 960

gagtgtactt aactattcag gagagtagaa cagataatca gtgtgtctaa atttgaatgt 1020

taagcagatg gaatgctgtg ttaaataaac ctcaaaatgt ctaagatagt aacaatgaag 1080

ataaaaagac attcttccaa aaagattttc agaaaatatt atgtgtttcc atattttata 1140

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tcaataataa atatttttgc cataatgact cagaatattg ctttggtcat atgagcttcc 1380

ttctgtgaaa tacattttgg agacacaact atttttccaa aataatttta agaaatcaaa 1440

gagagaaaat aaagaccttg cttatgattg cagataaaaa aaaaaaaaaa aaaaaaaaaa 1500

aaaaaaaaaa a 1511

<210> 19
<211> 438
<212> PRT
<213> Homo Sapiens

<400> 19

Met Arg Thr Leu Leu Pro Pro Ala Leu Leu Thr Cys Trp Leu Leu Ala
1 5 10 15

Pro Val Asn Ser Ile His Pro Glu Cys Arg Phe His Leu Glu Ile Gln
20 25 30

Glu Glu Glu Thr Lys Cys Thr Glu Leu Leu Arg Ser Gln Thr Glu Lys
35 40 45

His Lys Ala Cys Ser Gly Val Trp Asp Asn Ile Thr Cys Trp Arg Pro
50 55 60

Ala Asn Val Gly Glu Thr Val Thr Val Pro Cys Pro Lys Val Phe Ser
65 70 75 80

Asn Phe Tyr Ser Lys Ala Gly Asn Ile Ser Lys Asn Cys Thr Ser Asp
85 90 95

Gly Trp Ser Glu Thr Phe Pro Asp Phe Val Asp Ala Cys Gly Tyr Ser
100 105 110

Asp Pro Glu Asp Glu Ser Lys Ile Thr Phe Tyr Ile Leu Val Lys Ala
115 120 125

Ile Tyr Thr Leu Gly Tyr Ser Val Ser Leu Met Ser Leu Ala Thr Gly
130 135 140

Ser Ile Ile Leu Cys Leu Phe Arg Lys Leu His Cys Thr Arg Asn Tyr
145 150 155 160

Ile His Leu Asn Leu Phe Leu Ser Phe Ile Leu Arg Ala Ile Ser Val
165 170 175

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Leu Val Lys Asp Asp Val Leu Tyr Ser Ser Ser Gly Thr Leu His Cys
            180                 185                 190

Pro Asp Gln Pro Ser Ser Trp Val Gly Cys Lys Leu Ser Leu Val Phe
        195                 200                 205

Leu Gln Tyr Cys Ile Met Ala Asn Phe Phe Trp Leu Leu Val Glu Gly
    210                 215                 220

Leu Tyr Leu His Thr Leu Leu Val Ala Met Leu Pro Pro Arg Arg Cys
225                 230                 235                 240

Phe Leu Ala Tyr Leu Leu Ile Gly Trp Gly Leu Pro Thr Val Cys Ile
                245                 250                 255

Gly Ala Trp Thr Ala Ala Arg Leu Tyr Leu Glu Asp Thr Gly Cys Trp
            260                 265                 270

Asp Thr Asn Asp His Ser Val Pro Trp Trp Val Ile Arg Ile Pro Ile
        275                 280                 285

Leu Ile Ser Ile Ile Val Asn Phe Val Leu Phe Ile Ser Ile Ile Arg
    290                 295                 300

Ile Leu Leu Gln Lys Leu Thr Ser Pro Asp Val Gly Gly Asn Asp Gln
305                 310                 315                 320

Ser Gln Tyr Lys Arg Leu Ala Lys Ser Thr Leu Leu Leu Ile Pro Leu
                325                 330                 335

Phe Gly Val His Tyr Met Val Phe Ala Val Phe Pro Ile Ser Ile Ser
            340                 345                 350

Ser Lys Tyr Gln Ile Leu Phe Glu Leu Cys Leu Gly Ser Phe Gln Gly
        355                 360                 365

Leu Val Val Ala Val Leu Tyr Cys Phe Leu Asn Ser Glu Val Gln Cys
    370                 375                 380

Glu Leu Lys Arg Lys Trp Arg Ser Arg Cys Pro Thr Pro Ser Ala Ser
385                 390                 395                 400

Arg Asp Tyr Arg Val Cys Gly Ser Ser Phe Ser His Asn Gly Ser Glu
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Gly Ala Leu Gln Phe His Arg Ala Ser Arg Ala Gln Ser Phe Leu Gln
            420                 425                 430
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Thr Glu Thr Ser Val Ile
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<210> 20
<211> 1640
<212> DNA
<213> Homo Sapiens

<400> 20
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cccgcgctgc tgacctgctg gctgctcgcc cccgtgaaca gcattcaccc agaatgccga 240

tttcatctgg aaatacagga ggaagaaaca aaatgtacag agcttctgag gtctcaaaca 300

gaaaaacaca aagcctgcag tggcgtctgg gacaacatca cgtgctggcg gcctgccaat 360

gtgggagaga ccgtcacggt gccctgccca aaagtcttca gcaattttta cagcaaagca 420

ggaaacataa gcaaaaactg tacgagtgac ggatggtcag agacgttccc agatttcgtc 480

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